Activity: 7.6

**Establish Development Baselines** 

**Responsibility:** Project Team Programmers

**Description:** A development baseline is an approved "build" of the software product. A

build can be a single component or a combination of software components. The first development baseline is established after the first build is completed, tested, and approved by the project manager or lead programmer. Subsequent versions of a development baseline should also be approved. The approved development baseline for one build supersedes that for its predecessor build.

Conduct internal build tests such as regression, functional, and performance/reliability. Regression tests are designed to verify that capabilities in earlier builds continue to work correctly in subsequent builds. Functional tests focus on verifying that the build meets its functional and data requirements and correctly generates each expected display and report. Performance and reliability tests are used to identify the performance and reliability thresholds of each build.

Once the first development baseline is established, any changes to the baseline must be managed under the change control procedures described in the Software Configuration Management Plan. Approved changes to a development baseline must be incorporated into the next build of the software product and revisions made to the affected work products (e.g., Software Requirements Specification, System Design Document, and Program Specifications).

Work Product:

Document the internal build test procedures and results. Identify errors and describe the corrective action that was taken. Place a copy of the internal build test materials in the Project Test file.

Maintain configuration control logs and records as required in the Software Configuration Management Plan.

Expand the Requirements Traceability Matrix developed in the Requirements Definition Stage. All work products developed during the code, unit testing, and build processes must be traced back to the project requirements and system design. This traceability ensures that the product will satisfy all of the requirements and remain within the project scope. Place a copy of the expanded Requirements Traceability Matrix in the Project File.